Maryland Historical Trust

Maryland Inventory of Historic Properties number: AA-2123

Name: #2067/MD 794 over GALLOWAY CRK

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST

Eligibility Recommended _____ Eligibility Not Recommended __X____

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments: _____

_____

_____

Reviewer, OPS: _Anne E. Bruder_____ Date: __3 April 2001____

Reviewer, NR Program: __Peter E. Kurtze_____ Date: __3 April 2001____

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. AA-2123

SHA Bridge No. 2067 Bridge name MD 794 over Galloway Creek

LOCATION:
Street/Road name and number [facility carried] MD 794

City/town Waysons Corner Vicinity ____

County Anne Arundel

This bridge projects over: Road ___ Railway___ Water X__ Land ____

Ownership: State __X____ County __ Municipal _____ Other _____

HISTORIC STATUS:
Is the bridge located within a designated historic district? Yes _____ No __X__

National Register-listed district ____ National Register-determined-eligible district __
Locally-designated district _____ Other _____
Name of district _____

BRIDGE TYPE:
Timber Bridge _____:
Beam Bridge _____ Truss -Covered ___ Trestle ___ Timber-And-Concrete ___

Stone Arch Bridge __

Metal Truss Bridge _

Movable Bridge ____:
Swing _____ Bascule Single Leaf __ Bascule Multiple Leaf _____
Vertical Lift __ Retractile _____ Pontoon _____

Metal Girder _____:
Rolled Girder _____ Rolled Girder Concrete Encased _____
Plate Girder _____ Plate Girder Concrete Encased _____

Metal Suspension ___

Metal Arch __

Metal Cantilever ___

Concrete __X_____:
Concrete Arch_____ Concrete Slab __X___ Concrete Beam _____ Rigid Frame
Other _____ Type Name _____

AA-2123

DESCRIPTION:

Setting: Urban _____ **Small town** _____ **Rural** X

Describe Setting:

Bridge No. 2067 caries MD 794 over Galloway Creek in Anne Arundel County. MD 794 runs east-west, while Galloway Creek flows northeast to southwest. The area around the bridge is partially developed and has wetlands to the west and forested land to the north.

Describe Superstructure and Substructure:

Bridge No. 2067 over Galloway Creek in Anne Arundel County is a two span standard concrete slab bridge built in 1924. Span lengths are 20' and the clear roadway width is 24'-6" between concrete parapets. The concrete abutments are approximately 10' in height and the pier is a 2' wide solid shaft. The superstructure, consisting of the slab, the roadway, and the parapet, is in a deteriorated condition. The deck wearing surface has many cracks and the shoulder areas have no asphalt riding surface. The south shoulder of Span #1 has a 6" x 10' opening along the parapet. The concrete underdeck has heavy transverse and longitudinal cracking with heavy efflorescence throughout. The west side of the deck in Span #1 has patched areas which now have random bracing and hollow sounding areas. The east side of Span #1 has spalling the full length that is 3" deep with exposed rebar. The bridge is posted at 58,000 lbs for single units, and 80,000 for combination units.

The parapets on both sides of the bridge are not supporting members. They are not load bearing and rest upon the slab. These parapets are considered CDE's to concrete slabs. They represent the transition between the paneled design and pierced. Beginning in 1928, Maryland used a pierced railing with 13 open space to 1 expansion joint ratio. As discussed above, the original parapets on Span #1 were replaced in the 1970s, although no records exist to document the exact date. Currently both parapets are misaligned at the pier. The west side is out 3/4" and the east side is out by 4". In addition, both parapets are spalling on the south end.

The substructure consists of abutments, wingwalls and piers. The western abutment is in fair condition with the northwest wingwall having a horizontal crack where it meets the slab. The stream runs directly along this abutment but the member shows no sign of scour damage. The solid shaft pier is in fair condition. The outside edges show signs of water damage with the south sides have efflorescence on the surface. The east abutment is in poor condition due to both wingwalls having cracks and spalls at the connection with the slab. The northeast wingwall has been sheared off at the top.

Discuss Major Alterations:

The structure's second span has moved 1'-4" due to high water. The parapets have shifted 3 1/2" to the south. Its damage was caused by Hurricane Agnes in 1972. The district repaired the damaged bridge by widening Span #1 with a rolled beam and replacing the misaligned parapets on Span #1 with new ones lining up Span #2's parapets.

The bridge had solid panelled parapets on either side which were designed using pre-1928 standards (the new parapets laid in the 1970's mimic the earlier design).

HISTORY:

WHEN was the bridge built (actual or date range) 1924

This date is: Actual X **Estimated** _____

Source of date: Plaque _____ **Design plans** ____ **County bridge files/inspection form** X

Other (specify) _____

WHY was the bridge built?
Increased load capacity.

WHO was the designer?
State Roads Commission

WHO was the builder?
State Roads Commission

WHY was the bridge altered?
Extension of bridge's life.

WAS this bridge built as part of organized bridge-building campaign?
Yes, post World War I improvements to secondary roads.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A - Events ____ B- Person _____
C - Engineering /architectural character ___

This bridge does not have National Register significance.

Was the bridge constructed in response to significant events in Maryland or local history?
Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-1904 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement of the State Roads Commission was a 7 year program, starting with the Commissions establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920-1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic , with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of $3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund (with an equal sum from the counties) the building of lateral roads. the number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had been inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930's. Most improvements to local roads waited until the years after World War II.

When the bridge was built and/or given major alteration, did it have a significant impact on the growth and development of the area?
Although built following the first World War post construction phase this bridge did not greatly effect the area surrounding it. The structure did not increase settlement or industry.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from historic/visual character of the potential district?
No, this bridge is not located in an area which is eligible for historic designation.

Is the bridge a significant example of its type?
No, this structure is not a significant example of type. The character defining elements are either in a deteriorated state or they are not present in their original form.

Does the bridge retain integrity of important elements described in Context Addendum?
No, this structure does not retain the integrity of its original design because it has been widened and its character defining elements have been replaced.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer and why?
No, this bridge is not a significant example of the work of the State Roads Commission.

Should the bridge be given further study before an evaluation of its significance is made?
No, this structure should not be given further study. Although it reflects the state's post war construction needs of expanding secondary roads system, its current condition has placed its integrity in doubt.

BIBLIOGRAPHY:

Spero, P.A.C. & Company, and Louis Berger & Associates, "Historic Bridges in Maryland: Historic Bridge Context" September 1994.

State Roads Commission Report, 1917-1928.

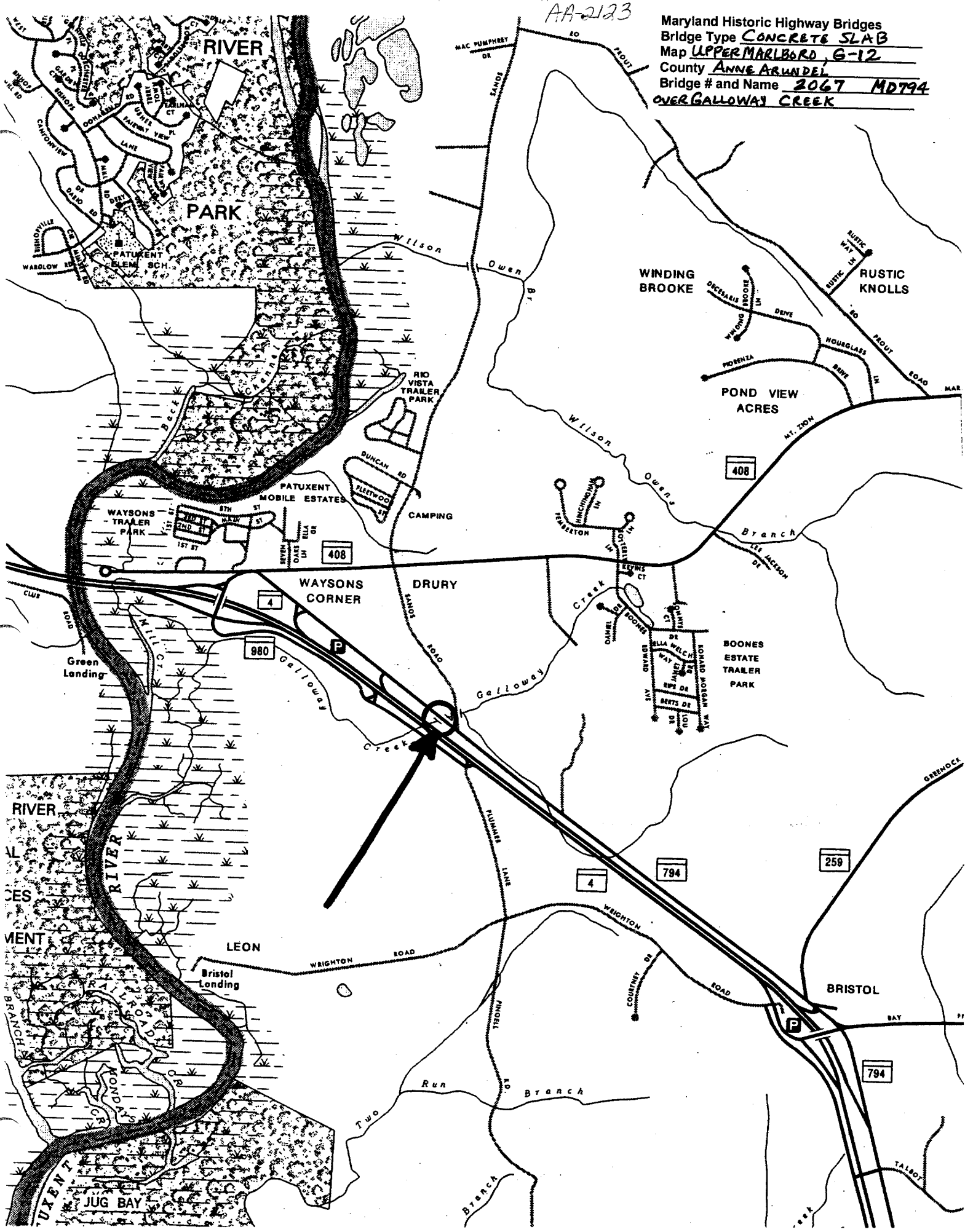
SURVEYOR/SURVEY INFORMATION:

Date bridge recorded 8/11/95

Name of surveyor Timothy J. Tamburrino
Organization/Address P.A.C Spero & Company,40 W. Chesapeake Avenue,Suite 412,Baltimore, Maryland 21204
Phone number 410-296-1635 **FAX Number** 410-296-1670

AA-2123

Maryland Historic Highway Bridges
Bridge Type CONCRETE SLAB
Map UPPER MARLBORO, G-12
County ANNE ARUNDEL
Bridge # and Name 2067 MD794
OVER GALLOWAY CREEK



AA-2123

MD 794 OVER GALLOWAY CREEK (2067)

ANNE ARUNDEL COUNTY

TIM TAMBURRINO

8/11/95

SOUTH APPROACH; VIEW

LOOKING NORTH

1 of 4

NEG. #9

AA-2122

MD 174 over Galloway Creek (2067)

Anne Arundel County

Tim Tamburrino

8/11/95

North Approach, View

Looking South

2 of 4

NEG # 10

AA-2123

MD 794 over Gallonay Creek (2067)

Anne Arundel County

Tim Tamburrino

8/11/95

West Elevation; view

Looking SE

3 of 4

Neg # 11

AA-2172

MD 794 over Galloway Creek

Anne Arundel County

Tim Tamburrino

8/11/95

West Parapet,

View Looking West

4 of 4

Neg. #12

9502282

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Bridge #2067 Survey Number: AA-2123

Project: Replace Bridge #2067, MD 794 over Galloway Creek Agency: FHWA/SHA

Site visit by MHT Staff: _X_ no ___ yes Name _____ Date _____

Eligibility recommended _____ Eligibility **not** recommended _X_

Criteria: _X_A ___B _X_C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

Based on information prepared by SHA, Bridge #2067, located near Waysons Corner in Anne Arundel County, does not appear to meet the National Register Criteria for individual listing. The bridge was determined "not eligible" at the September 21, 1995 meeting of the SHA/MHT Review Committee for the bridge inventory. The 1924 two span concrete slab bridge was constructed according to design standards issued by the State Roads Commission and is similar to numerous bridges throughout the state. It was constructed during the state's "Good Roads Movement" (c. 1890-?), but has no particular connection to this long-lived general improvement effort. In addition, the bridge does not retain sufficient integrity to meet either National Register criteria A or C. The bridge was damaged in Hurricane Agnes in 1972. Subsequent repairs included widening Span No. 1 with a rolled beam and replacing balustrades on Span No. 1. The bridge is not located in any known historic district.

Documentation on the property/district is presented in: AA-2123 and Project file

Prepared by: Stacie Webb, SHA

Elizabeth Hannold — September 28, 1995
Reviewer, Office of Preservation Services — Date

NR program concurrence: ✓ yes ___ no ___ not applicable

Orlando Rodriguez — Sept. 28, 1995
Reviewer, NR program — Date

Survey No. AA-2123

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
__X__	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
____	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
____	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Paleo-Indian	10000-7500 B.C.
____	Early Archaic	7500-6000 B.C.
____	Middle Archaic	6000-4000 B.C.
____	Late Archaic	4000-2000 B.C.
____	Early Woodland	2000-500 B.C.
____	Middle Woodland	500 B.C. - A.D. 900
____	Late Woodland/Archaic	A.D. 900-1600
____	Contact and Settlement	A.D. 1570-1750
____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
__X__	Industrial/Urban Dominance	A.D. 1870-1930
____	Modern Period	A.D. 1930-Present
____	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

____	Subsistence
____	Settlement
____	Political
____	Demographic
____	Religion
____	Technology
____	Environmental Adaption

IV. Historic Period Themes:

____	Agriculture
__X__	Architecture, Landscape Architecture, and Community Planning
____	Economic (Commercial and Industrial)
____	Government/Law
____	Military
____	Religion
____	Social/Educational/Cultural
__X__	Transportation

V. Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Use(s): Transportation -vehicular

Known Design Source: na

Bridge No. 2067
MD 794 over Galloway Creek

HISTORIC CONTEXT

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA

Geographic Organization: **Western Shore**

Chronological/Development Period(s): **Industrial/Urban Dominance**

Prehistoric/Historic Period Theme(s):**Transportation**

Resources Type:

Category:**Structure**

Historic Environment: **Rural**

Historic Functions(s) and Use(s): **Transportation/Road-Related**

Known Design Source: **State Roads Commission 1924 Standards**

MARYLAND INVENTORY OF HISTORIC PROPERTIES

Survey No. AA-2123

Magi No.

DOE __yes __no

Maryland Historical Trust State Historic Sites Inventory Form

1. Name (indicate preferred name)

historic MD 794 ovr Galloway Creek (Bridge No. 2067)

and/or common

2. Location

street & number MD 794 over Galloway Creek ___ not for publication

city, town Waysons Corner __xx vicinity of congressional district

state Maryland county Anne Arundel

3. Classification

Category	Ownership	Status	Present Use	
___ district	_X_ public	___ occupied	___ agriculture	___ museum
___ building(s)	___ private	___ unoccupied	___ commercial	___ park
_X_ structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	_X_ yes: unrestricted	___ industrial	_X_ transportation
	___ not applicable	___ no	___ military	___ other:

4. Owner of Property (give names and mailing addresses of all owners)

name State of Maryland/State Highway Administration

street & number 707 N. Calvert Street telephone no.:

city, town Baltimore state and zip code Maryland 21202

5. Location of Legal Description

courthouse, registry of deeds, etc. liber

street & number folio

city, town state

6. Representation in Existing Historical Surveys

title

date ___ federal ___ state ___ county ___ local

depository for survey records

city, town state

7. Description

Survey No. AA-2123

Condition		Check one	Check one
___ excellent	_X_ deteriorated	___ unaltered	_X_ original site
___ good	___ ruins	___ altered	___ moved date of move _____
___ fair	___ unexposed		

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

SEE ATTACHED

8. Significance

Survey No. ~~AA~~-2123

Period	Areas of Significance—Check and justify below			
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science
1500–1599	___ agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	___ architecture	___ education	___ military	___ social/ humanitarian
___ 1700–1799	___ art	___ engineering	___ music	___ theater
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	X transportation
X 1900–	___ communications	___ industry	___ politics/government	___ other (specify)
		___ invention		

Specific dates **Builder/Architect**

check: Applicable Criteria: __A __B X C __D
and/or
Applicable Exception: __A __B __C __D __E __F __G

Level of Significance: __national __state __local

Prepare both a summary paragraph of significance and a general statement of history and support.

SEE ATTACHED

9. Major Bibliographical References

Survey No. AA-2123

Spero, P.A.C. & Company and Louis Berger & Associates
"Historic Bridges in Maryland; Historic Bridge Context", September 1994
State Roads Commission Report 1917-1928

10. Geographical Data

Acreage of nominated property 1 acre
Quadrangle name Bristol Quadrangle scale

UTM References do NOT complete UTM references

	Zone	Easting	Northing		Zone	Easting	Northing
A				B			
C				D			
E				F			
G				H			

Verbal boundary description and justification

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
state	code	county	code

11. Form Prepared By

name/title	Stacie Y. Webb		
organization	State Highway Administration	date	February 28, 1995
street & number	707 N. Calvert Street	telephone	(410) 333-3439
city or town	Baltimore	state	Maryland

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
Shaw House
21 State Circle
Annapolis, Maryland 21401
(301) 269-2438

Bridge No. 2067
MD 794 over Galloway Creek
7.1 Description

Bridge No. 2076 carries MD 794 (AA-55) over Galloway Creek in Anne Arundel County. MD 794 runs east-west, while Galloway Creek flows east-west. The area around the bridge is partially developed and with wetlands to the west and forested land to the north.

Bridge No. 2067 over Galloway Creek (AA-55) is a two span standard concrete slab built in 1924. Span lengths are 20' +/- and the clear roadway width is 24'-6" +/- between concrete balustrades. The abutments are approximately 10' in height and the pier is a 2' wide solid shaft. The superstructure, consisting of the slab, the roadway, and the parapet is in a deteriorated condition. The deck riding surface has many cracks and the shoulder areas have no asphalt riding surface and the south shoulder of Span No. 1 has a 6" x 10' opening along the balustrade. The concrete underdeck has heavy transverse and longitudinal cracking with heavy efflourence throughout. The west side of the deck in span # 1 has patched areas which now have random bracing and hollow sounding areas. The east side of Span #1 has spalling the full length that is 3" deep with exposed rebar. The bridge is posted at 58,000 lbs for single units, and 80,000 lbs for combination units.

This structure's second span has moved 1'-4" due to high water. The balustrades have shifted 3 1/2" to the south. It's damage was caused by Hurricane Agnes in 1972. The district repaired the damaged bridge by widening Span No. 1 with a rolled beam and replacing the misaligned balustrades on Span No. 1 with new ones lining up Span No. 2's balustrades.

The bridge had closed paneled parapets on either side which were designed using pre-1928 standards (The new parapets laid in the 1970's mimic the earlier design). The parapets on both sides of the bridge are not supporting members. They are not load bearing and rest upon the slab. These parapets are considered character defining elements (CDE's) to concrete slabs. They represent the transition between the paneled design and pierced. Beginning in 1928, Maryland used a pierced railing with a 13 open space to 1 expansion joint ratio. As discussed above the original balustrades on Span No. 1 were replaced in the 1970's although no records exist to document the exact date. Currently both parapets are misaligned at the pier. The west side is out 3/4" and the east side is out by 4". In addition both parapets are spalling on the south end.

The substructure consists of abutments, wing walls, and piers. The western abutment is in fair condition with the northwest wingwall having a horizontal crack where it meets the slab. The stream runs directly along this abutment but the member shows no signs of scour damage. The solid shaft pier is in fair condition. The outside edges show signs of water damage with the south sides having efflorescence on the surface. The east abutment is in poor condition due to both wingwalls having cracks and spalls at the connection with the slab. The north east wingwall has been sheared off at the top.

Bridge No. 2067
MD 794 over Galloway Creek
8.1 Significance

The 1994 Historic Highway Bridge Context describes the history of each bridge type within Maryland. The reinforced concrete slab became once of the most popular and expedient forms of small highway bridges used during the first four decades of this century. Bridge engineering treatises such as H. Grattan Tyrell's 1909 Concrete Bridges and Culverts for Both Railroads and Highways and J.A.L. Waddell's 1916 Bridge Engineering described the versatile usefulness of reinforced concrete slabs for single spans as well as mutable spans. (Spero 1994, 144)

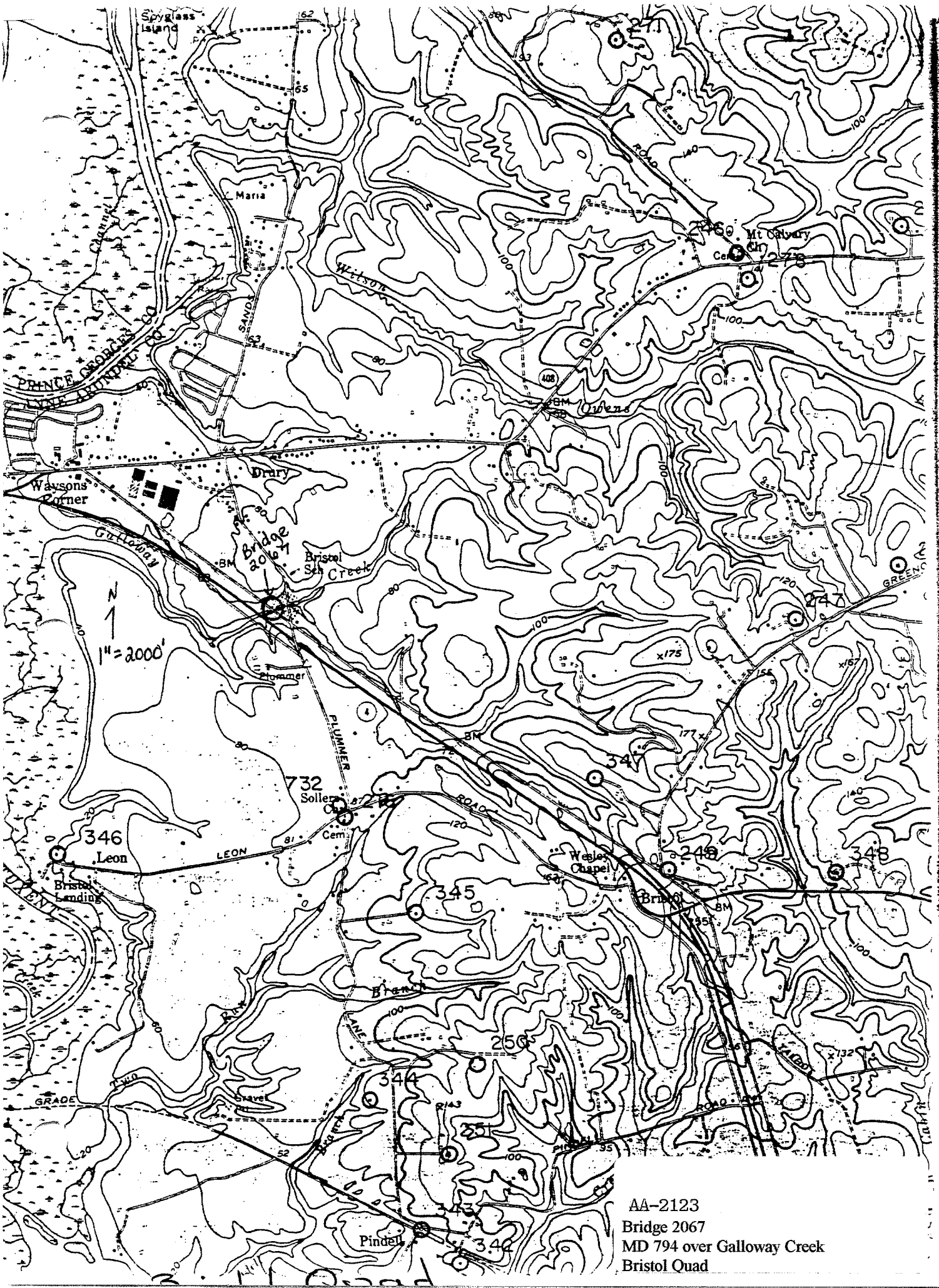
These authors realized that the Good Roads movement and the concurrent automotive revolution would require construction or reconstruction of a large number of ordinary highway bridges. The development of design and construction standards based on Tyrell, Wadell and other author's work facilitated the replacement and new design of thousands of bridges.

Standard design was began by the railroads in this country. Following their lead and using the standard texts' as a foundation, the State Road Commission of Maryland developed its first plans in 1909. The first designs were for concrete beams, slabs and girders. These first designs were followed by updates in 1912, 1919, 1920, 1924, 1030, and 1933. The updates created a full set of design standards from 6 foot culverts to multiple spans of 100 feet. This tradition continues until the present. The State Highway Administration has a two volume set of design standards covering everything from stop lights to highway bridges.

The need to increase load capacity in rural areas became more important following World War I. Increased truck traffic brought on by the war time economy and little funding due to the war created a catch-22 for the State Roads Commission. The war bolstered the economy and created a greater demand for better roads yet at the same time the state could not always meet those demands because of the building restrictions created by the war.

The use of standardized bridges allowed the road improvements to continue at a rapid and fiscally economic pace. During the decade of the twenties the road-building emphasis in Maryland was shifted to the improvement of secondary roads, the network of feeder roads that brought the people to the principal highways built before World War I. The number miles of hard surfaced roads on the state system grew from 2,000 in 1920 to 3,200 in 1930.

Although built following the first World War post construction phase, this bridge did not greatly effect the area surrounding it. The structure did not increase settlement or industry.



AA-2123
Bridge 2067
MD 794 over Galloway Creek
Bristol Quad

Inventory # AA-2123

Name 2067 - MD 794 OVER GALLOWAY CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description EAST APPROACH LOOKING WEST

Number ~~9 of 18~~ 1 of 4

Inventory # AA-2123

Name 2067 - MD 794 OVER GALLOWAY CREEK
County/State ANNE ARUNDEL COUNTY / MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description WEST APPROACH LOOKING EAST

Number ~~10 of 18~~ 2 of 4

Inventory # AA-2123

Name 2007-MD794 OVER GALLOWAY CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description SOUTH ELEVATION

Number ~~11 of 18~~ 3 of 4

Inventory # AA-2123

Name 2067-MD 794 OVER GALLOWAY CREEK
County/State ANNE ARUNDEL COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description NORTH ELEVATION

Number ~~12 of 18~~ 4 of 4